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CLAIMS:

What is claimed is:

1. A method in a logically partitioned data processing system, the method comprising:

receiving a packet in a host channel adapter for a system area network;

checking a multicast table in the host channel adapter to determine if a matching entry exists; and

forwarding the packet to trusted software in response to a determination that the packet is intended for multicasting and that no matching entry exists in the multicast table,

wherein the trusted software forwards the packet to appropriate recipient logical partitions.

2. The method of claim 1, wherein at least one protocol checking operation of the host channel adapter is bypassed for the purpose of forwarding the packet to the trusted software.

3. The method of claim 2, wherein the trusted software completes the at least one protocol checking operation on the forwarded packet.

4. The method of claim 3, wherein the at least one protocol checking operation includes at least one of queue key (Q_key) checking and partition key (P_key) checking.

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5. The method of claim 1, wherein the trusted software includes at least one of a hypervisor and an operating system.

6. The method of claim 1, wherein the packet is received by the host channel adapter from a system area network fabric.

7. The method of claim 1, wherein the packet is received by the host channel adapter from an application on a host associated with the host channel adapter and the packet is received by the host channel adapter for the purpose of transmitting the packet over the system area network.

8. The method of claim 7, wherein in response to the host channel adapter's receiving the packet with a Force Out data element set to a first value, the host channel adapter attempts to transmit the packet to local logical host channel adapters, and in response to the channel adapter's receiving the packet with the Force Out data element set to a second value that is distinct from the first value, the host channel adapter transmits the packet over a system area network fabric.

9. A computer program product in a computer-readable medium comprising functional descriptive material that, when executed by a computer, causes the computer to perform actions that include:

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receiving a packet in a host channel adapter for a system area network;

checking a multicast table in the host channel adapter to determine if a matching entry exists; and

forwarding the packet to trusted software in response to a determination that the packet is intended for multicasting and that no matching entry exists in the multicast table,

wherein the trusted software forwards the packet to appropriate recipient logical partitions.

10. The computer program product of claim 9, wherein at least one protocol checking operation of the host channel adapter is bypassed for the purpose of forwarding the packet to the trusted software.

11. The computer program product of claim 10, wherein the trusted software completes the at least one protocol checking operation on the forwarded packet.

12. The computer program product of claim 11, wherein the at least one protocol checking operation includes at least one of queue key (Q_key) checking and partition key (P_key) checking.

13. The computer program product of claim 9, wherein the trusted software includes at least one of a hypervisor and an operating system.

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14. The computer program product of claim 9, wherein the packet is received by the host channel adapter from a system area network fabric.

15. The computer program product of claim 9, wherein the packet is received by the host channel adapter from an application on a host associated with the host channel adapter and the packet is received by the host channel adapter for the purpose of transmitting the packet over the system area network.

16. The computer program product of claim 15, wherein in response to the host channel adapter's receiving the packet with a Force Out data element set to a first value, the host channel adapter attempts to transmit the packet to local logical host channel adapters, and in response to the channel adapter's receiving the packet with the Force Out data element set to a second value that is distinct from the first value, the host channel adapter transmits the packet over a system area network fabric.

17. A data processing system comprising:

receiving means for receiving a packet in a host channel adapter for a system area network;

checking means for checking a multicast table in the host channel adapter to determine if a matching entry exists; and

forwarding means for forwarding the packet to trusted software in response to a determination that the

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packet is intended for multicasting and that no matching entry exists in the multicast table,

wherein the trusted software forwards the packet to appropriate recipient logical partitions.

18. The data processing system of claim 17, wherein at least one protocol checking operation of the host channel adapter is bypassed for the purpose of forwarding the packet to the trusted software.

19. The data processing system of claim 18, wherein the trusted software completes the at least one protocol checking operation on the forwarded packet.

20. The data processing system of claim 19, wherein the at least one protocol checking operation includes at least one of queue key (Q_key) checking and partition key (P_key) checking.

21. The data processing system of claim 17, wherein the trusted software includes at least one of a hypervisor and an operating system.

22. The data processing system of claim 17, wherein the packet is received by the host channel adapter from a system area network fabric.

23. The data processing system of claim 17, wherein the packet is received by the host channel adapter from an application on a host associated with the host channel

adapter and the packet is received by the host channel adapter for the purpose of transmitting the packet over the system area network.

24. The data processing system of claim 23, wherein in response to the host channel adapter's receiving the packet with a Force Out data element set to a first value, the host channel adapter attempts to transmit the packet to local logical host channel adapters, and in response to the channel adapter's receiving the packet with the Force Out data element set to a second value that is distinct from the first value, the host channel adapter transmits the packet over a system area network fabric.